

14. Sewage treatment plant, leach pit, sewage drain tiles and outfall line (south of CPP-664).

	INITIAL	ASSESSMEN'	I FORM	1			
I. SITE NAME AND LOCAT	rion						
01 SITE NAME Sewage treatment pla	ant south (	of CPP-664	*		Nati	onal Engi	ineering
03 CITY Scoville		04 STATE Idaho		IP CODE		COUNTY itte	
09 COORDINATES: NORTH	E/	AST	07 CC	DUNTY CO	DE 0	8 CONG. I	DIST.
<u>6 9 5 8 7</u>	5 29	<u>6 9 4 0</u>					
10 DIRECTIONS TO SITE N. on Lincoln Blvd.				olic roa	id)		
II. OWNER/OPERATOR							
01 OWNER (If known) Department of Energy	(DOE)	02 STREI 785 I	ET ADI DOE PI				
03 CITY Idaho Falls	04 STATI Idaho		ZIP COD 33402	)E 06	TELEPHON (208) 52		
07 OPERATOR (If known) Westinghouse Idaho	Nuclear Co	. 08 STREI	ET ADI Box 4				
09 CITY Idaho Falls		10 STATI Idaho		ZIP COD	)E 12	? TELEPHON (208) 52	
III. CHARACTERIZATION	OF POTENTIA	AL HAZARD					
01 ON SITE INSPECTION	x YES	NO	DATE	E <u>7 /10</u>	) /86	<u>i</u>	
02 SITE STATUS (Check of		ive C.	Unkno	non		·	HAZ WASTE
						<del>-</del>	Oliniowa
04 DESCRIPTION OF SUBST		SIBLI FRES	ENT, r	THOMIN, C	)K AL	175G5TA	
05 DESCRIPTION OF POTEN See Hazardous Condition				T AND/C	R PO	PULATION	
IV. INFORMATION AVAILAB	BLE FROM						
01 CONTACT Clifford Clark		ency/Org.) E-ID		03		EPHONE NU 1) 526-112	
04 PERSON RESPONSIBLE FOR ASSESSMENT D. Joan Poland		GENCY INCO	06 OF		07	TELEPHONE (208) 526	
)8 DATE 10 / 7 /86 Mon Day Year							

WASTE INFORMATION						
I. WASTE S	TATES, QUANTITIE	s, and (	CHARACTE	RISTICS		·
_A. Solid _B. Powder _C. Sludge _xD. Other	STATES (Check a  E. Slu Fines F. Liq G. Gas Contaminated so  ARACTERISTICS (C D. Pers ive E. Solu ctive F. Infe	urry quid bil	l that a	NO.	NSJ	10 3
II. WASTE	TYPE	· · · · · · · · · · · · · · · · · · ·				
SLU OLW SOL PSD OCC IOC ACD BAS	SUBSTANCE NAME Sludge Oily Waste Solvents Pesticides Other organic ch Inorganic chemic Acids Bases Heavy metals		01 GROS	S AMOUNT	02 UNIT	COMMENTS
III. HAZARD	OUS CONSTITUENTS	S			<u> </u>	<u> </u>
01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBI		STOR/DISI METHOD	P 05 CONG	C. 06 MEASURE
Use specifi	S OF INFORMATION c references, e.	.g., sta	te title iews. pr	s, sample	analysis	reports,etc.)

	HAZARDOUS CONDITIONS AND INCIDENTS
I.	HAZARDOUS CONDITIONS AND INCIDENTS
	A. GROUNDWATER CONT. 02 OBSERVED (Date) POTENTIAL NARRATIVE DESCRIPTION: ALLEGED
	N/A
01 03	B. SURFACE WATER CONT. 02 OBSERVED (Date) POTENTIAL NARRATIVE DESCRIPTION: ALLEGED
	N/A
01	C. CONTAMINATION OF AIR
	N/A
	D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (Date ) POTENTIAL POPULATION POTENTIALLY AFFECTED 04 NARRATIVE DESCRIPTION ALLEGED
1	N/A
	E. DIRECT CONTACT 02 OBSERVED (Date) POTENTIAL
03	POPULATION POTENTIALLY AFFECTED04 NARRATIVE DESCRIPTION ALLEGED
	N/A
	F. CONTAMINATION OF SOIL 02 OBSERVED (Date) POTENTIAL NARRATIVE DESCRIPTION:
	N/A
	G. DRINKING WATER CONTAMINATION 02 OBSERVED (Date) POTENTIAL
03	NARRATIVE DESCRIPTION: ALLEGED
ļ	N/A

	HAZARDOUS CONDITIONS AND INCIDENTS
ī.	HAZARDOUS CONDITIONS AND INCIDENTS (Continued)
1	
01	K. DAMAGE TO FAUNA 02 OBSERVED (Date) POTENTIAL NARRATIVE DESCRIPTION: (include name(s) of species) ALLEGED
	N/A
04	L. CONTAMINATION OF FOOD CHAIN 02 OBSERVED (Date) POTENTIAL NARRATIVE DESCRIPTION: ALLEGED
	N/ A
(SI	M. UNSTABLE CONTAINMENT OF WASTES 02 OBSERVED (Date) POTENTIAL PILL RUNOFF, STANDING LIQUIDS/LEAKING DRUMS) NARRATIVE DESCRIPTION: ALLEGED
	N/A
01 04	N. DAMAGE TO OFFSITE PROPERTY 02 OBSERVED (Date) POTENTIAL NARRATIVE DESCRIPTION: ALLEGED
	N/A
Ì	O. CONTAMINATION OF SEWERS, STORM 02 OBSERVED(Date ) POTENTIAL DRAINS, WWTPS
04	NARRATIVE DESCRIPTION: ALLEGED  N/A
01 04	P. ILLEGAL/UNAUTHORIZED DUMPING 02 OBSERVED (Date ) POTENTIAL NARRATIVE DESCRIPTION: ALLEGED
,	N/A
05	DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL OR ALLEGED HAZARDS
	None. Radionuclide contamination only.
III	. COMMENTS
	SOURCES OF INFORMATION (List specific references, e.g., state titles, sample analysis, reports) te inspections, personnel interviews, and Installation Assessment Report.

PRIORITY RANKING SYSTEM
I. GENERAL FACILITY INFORMATION
FACILITY NAME: <u>CPP Sewase Treatment Plant</u> LOCATION: <u>South of CPP. 664</u> POINT OF CONTACT: NAME:  ADDRESS:
PHONE:
REVIEWER: Dean Poland DATE: 10/19/36
II. GENERAL FACILITY DESCRIPTION
GENERAL DESCRIPTION CF THE FACILITY: (For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of facility; contamination route of major concern; types of information needed for rating; agency action, etc.)  From 1951 to 1982 a sewage treatment plant served must of the bouldings present at CPP. Radiosactive decontamination showers drained into the plant was and then to an outfall pit. The plant was decommissioned in 1982 and the sludge from the drain tiles and autfall line were left in place.
III. SCORES
SM =

•

	G	ROUND WATER ROUTE WOR	KSHEET			
RATING FAC	CTOR	ASSIGNED VALUE (Circle one)	MULTI- PLIER	SCORE	MAX. SCORE	REF. Section
						3.2
1.ROUTE CHARAC Depth to Aqui Concern		<u>O</u> 1 2 3	2		6	
Net Precipita Permeability	of the	$0 \ 1 \ 2 \ 3 \ 0 \ 1 \ 2 \ 3$	1		3 3	
Unsaturated Physical Stat		0 1 2 3	1		3	
To	otal Route C	haracteristics Score		5	15	
2. CONTAINMENT 0 1 2 (3)			1	3	3	3.3
3.WASTE CHARAC Toxicity/Pers Hazardous Was Quantity	sistence	0 3 6 9 12 15 18 0 1 2 3 4 5 6 7 8	1		18 8	, 3.4
Tot	tal Waste Ch	aracteristics Score		0	26	·
4. Multiply	lines 1 x 2	ж 3		0	1170	
5. Divide line 4 by 1170 and multiply by 100 Sgw= 0						

RATING FACTOR	ASSIGNED VALUE (Circle one)	MULTI- PLIER	SCORE	MAX. SCORE	REF. Section
					4.2
1.ROUTE CHARACTERISTICS Facility Slope and	(9 <sup>1</sup> 2 3	1		3	
Intervening Terrain 1-yr. 24-hr. Rainfall Distance to Nearest	0 D 2 3 0 1 2 3	1 2		3 6	
Surface Water Physical State	0 1 2 3	1		3	
Total Route	Characteristics Score		8	15	
2.CONTAINMENT	<u>0</u> 123	1	_0	3	4.3
3.WASTE CHARACTERISTICS Toxicity/Persistence Hazardous Waste Quantity	0 3 6 9 12 15 18 0 1 2 3 4 5 6 7 8	1		18 8	4.4
Total Waste	Characteristics Score		0	26	
4. Multiply lines 1 x	2 x 3		0	1170	

5. Divide line 4 by 1170 and multiply by 100 Ssw= O

		AIR ROUTE WORKSH	EET					
RATING :	FACTOR	ASSIGNED VALUE (Circle one)	MULTI- PLIER	SCORE	MAX. SCORE	REF. Section		
1.HISTORIC	RELEASE	<b>O</b> 45	1	0	45	5.1		
Date and Location: See attached supplement pages								
If line 1	is 0, the S	a = 0. Enter on line	5.			** *		
If line 1	is 45, then	proceed to line 2.						
Reactivity		0 1 2 3	1		3	5.2		
Tocompation Toxicity Hazardous Tourity		0 1 2 3 0 1 2 3 4 5 6 7 8	3 1		9 8			
•	Total Waste	Characteristics Score			20	·		
	within adius	0 9 12 15 18 21 2 27 30			30	5.3		
Distance to Environme	o Sensitive	0 1 2 3	2		6			
Land Use	· · · · · · · · · · · · · · · · · · ·	0 1 2 3	1		3			
	Total Targe	t Scores			39			
4. Multip	ly lines 1 x	: 2 x 3			35100			
5. Divide line 4 by 35100 and multiply by 100 Sa =								

·	S	s <sup>2</sup>
GROUNDWATER ROUTE SCORE (Sgw)	0	0
SURFACE WATER ROUTE SCORE (Ssw)	0	0
AIR ROUTE SCORE (Sa)	0	0
2 2 2 Sgw + Ssw + Sa		0
2 2 2 SQR(Sgw + Ssw + Sa)		0
$2 \qquad 2 \qquad 2  SQR(Sgw + Ssw + Sa)/1.73 = SM$		0

### DOCUMENTATION RECORDS FOR HAZARD RANKING SYSTEM

INSTRUCTIONS: As briefly as possible, summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: CPP Surage Treatment Plant
LOCATION: South of CPP.664
DATE SCORED: 10/18/86
PERSON SCORING: D. Jaan Poland
<i>y</i>
Site inspections, personnel interview and process records
FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

COMMENTS OR QUALIFICATIONS:

Radio nuelide release orly

#### GROUNDWATER ROUTE

OBSERVED RELEASE - Undertake Corrective Action
 Contaminants detected (3 maximum):

None

Rationale for attributing the contaminants to the facility:

#### 2. ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

Snake River Plain Agusfer

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

450

Depth from the ground surface to the lowest point of waste disposal/ storage:

8-10 ft.

### Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

9.07 inches

Mean annual lake or seasonal evaporation (list months for seasonal):

36 inches

Net precipitation (subtract the above figures):

- 26.93 inches

### Permeability of Unsaturated Zone

Soil type in unsaturated zone:

An interbedded sequence of basaltic lava flows and sedimentary deposits.

Permeability associated with soil type:

 $10^{-7}$  to  $10^{-3}$  cm/sec

### Physical State

Physical state of substances at time of disposal (or at present time for Liquid Sludge

generated gases):

### 3. CONTAINMENT

### Containment

Method(s) of waste or leachate containment evaluated:

None

Method of highest score:

### 4. WASTE CHARACTERISTICS

### Toxicity and Persistence

Compound(s) evaluated:

None

Compound with highest score:

None

### Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of O (Give a reasonable estimate even if quantity is above maximum):

None

Basis of estimating and/or computing waste quantity:

tify	ving R	<u>elease</u>	<u>Yes</u>	No
Pote	ential	for Groundwater Releases from the Unit		
•	_	type and design		
	-	Does the unit type (e.g., land-based) indicate the potential for release?	<u> </u>	
	-	Does the unit have engineered structures (e.g., liners, leachate collection systems, proper construction materials) designed to prevent releases to groundwater?		<u>. <u>.</u> <u>.</u></u>
0	Unit	operation		
	-	Does the unit's age (e.g., old unit) or operating status (e.g., inactive, active) indicate the potential for release?	www.nationstate	
	-	Does the unit have poor operating pro- cedures that increase the potential for release?		
	•	Does the unit have compliance problems that indicate the potential for a release to groundwater?		_
0	Phys	ical condition		
	-	Does the unit's physical condition in- dicate the potential for release (e.g., lack of structural integrity, deterior- ating liners, etc.)?		
0	Loca	tional characteristics		
	-	Is the unit located on permeable soil so the release could migrate through the unsaturated soil zone?	<u>~</u>	_
	4.	Is the unit located in an arid area where the soil is less saturated and therefore a release has less potential for downward migration?	<u>~</u>	
	***	Does the depth from the unit to the uppermost aquifer indicate the potential for release?		,

### Checklist for Groundwater Releases

				<u>Yes</u>	<u>No</u>
			Does the rate of groundwater flow greatly inhibit the migration of a release from the facility?	<u> </u>	
		-	Is the facility located in an area that recharges surface water?	-	_
	0	Waste	characteristics		
		-	Does the waste in the unit exhibit high or moderate characteristics of mobility (e.g., tendency not to sorb soil particles or organic matter in the unsaturated zone)?		<u>/</u>
		-	Does the waste exhibit high or moderate levels of toxicity?	-	
2.	Evid	ence d	of Groundwater Releases		•
	0	Exist	ting groundwater monitoring systems		
		-	Is there an existing system?		/
		-	Is the system adequate?		_
		•	Are there recent analytical data that indicate a release?		_
	o	Other	r evidence of groundwater releases		
		-	Is there evidence of contamination around the unit (e.g., discolored soils, lack of or stressed vegetation) that indicates the potential for a release to groundwater?		<u> </u>
		•	Does local well water or spring water sampling data indicate a release from the unit?		_
Deti	ermin	ing th	he Relative Effect of the Release on Human		
			_		
1.	Expo		Potential		
	0	Cond	itions that indicate potential exposure		
		-	Are there drinking water well(s) located near the unit?		_
			Does the direction of groundwater flow indicate the potential for hazardous constituents to migrate to drinking water wells?		<u> </u>

#### SURFACE WATER ROUTE

### 1. OBSERVED RELEASE - Undertake Corrective Action

Contaminants detected in surface water at the facility or downhill from it (3 maximum):

None

Rationale for attributing the contaminants to the facility:

### 2. ROUTE CHARACTERISTICS

## Facility Slope and Intervening Terrain

Average slope of facility in percent:

0.04 %

Name/description of nearest downslope surface water:

Big Lost River

Average slope of terrain between facility and above cited surface water body in percent:

0.07%

Is the facility located either totally or partially in surface water?

No

Is the facility completely surrounded by areas of high elevation?

None

# 1-year 24-Hour Rainfall in Inches

less than 2 inches

Distance to Nearest Downslope Surface Water

1,400ft.

Physical State of Waste

Contaminated soil

### 3. CONTAINMENT

### <u>Containment</u>

 $\label{eq:method} \textbf{Method(s)} \ \ \textbf{of waste or leachate containment evaluated:}$ 

Nome

Method with highest score:

				<u>Yes</u>	No
Ide	ntify	ing Re	leases		
1	Poter from	ntial the F	for Surface Water/Surface Drainage Release acility		
	0	Proxi Recep			
		•	Could surface run-off from the unit reach the nearest downgradient surface water body?		_
		<b>es</b>	Could surface run-off from the unit reach off-site receptors (e.g., if facility is located adjacent to populated areas and no barrier exists to prevent overland surface run-off migration)?		<u>/</u>
	0	Relea	se Migration Potential		
1		-	Does the slope of the facility and intervening terrain indicate potential for release?		<u>/</u>
		-	Is the intervening terrain characterized by soils and vegetation that allow overland migration (e.g., clayey soils, and sparse vegetation)?		<u>/</u>
		-	Does data on one-year 24-hour rainfall indicate the potential for area storms to cause surface water or surface drainage contamination as a result of run-off?		<u>/</u>
	0	Unit	Design and Physical Condition		
		-	Are engineered features (e.g., run-off control systems) designed to prevent release from the unit?		<u>/</u>
		-	Does the operational history of the unit indicate that a release has taken place (e.g., old, closed or inactive unit, not inspected regularly, improperly maintained)?		<u>/</u>
		-	Does the physical condition of the unit indicate that releases may have occurred (e.g., cracks or stress factures in tanks or erosion of earthen dikes of surface impoundments)?		_

## Checklist for Surface Water/Surface Drainage Releases

		Yes	<u>No</u>
0	Waste Characteristics		
	Is the volume of discharge high relative to the size and flow rate of the surface water body?	-	<u>/</u>
	Do constituents in the discharge tend to sorb to sediments (e.g., metals)?		<u>/</u>
	Do constituents in the discharge tend to be transported downstream?	****	_
	Do waste constituents exhibit moderate or high characteristics of persistence (e.g., PCBs, dioxins, etc.)?	***************************************	_
	Do waste constituents exhibit moderate or high characteristics of toxicity (e.g., metals, chlorinated pesticides, etc.)?	_	<u>/</u>
 Evid	ence of Surface Water/Surface Drainage Releases		
0	Are there unpermitted discharges from the facility to surface water that require an NPDES or a Section 404 permit?	_	<u> </u>
0	Is there visible evidence of uncontrolled run-off from units at the facility?	_	<u>/</u>
	ing the Relative Effect of the Release on Human		
 0	Are there drinking water intakes nearby?		_
o	Could human and/or environmental receptors come into contact with surface drainage from the facility?	- magninistrative	_
0	Are there irrigation water intakes nearby?	***************************************	
0	Could a sensitive environment (e.g., critical habitat, wetlands) be affected by the discharge (if it is nearby)?		/

1.	OBSERVED RELEASE
	Contaminants detected:
	None
	Date and Location of detection of contaminants:
	Methods used to detect the contaminants:
	Rationale for attributing the contaminants to the site:
2.	WASTE CHARACTERISTICS
	Reactivity and Incompatibility
	Most reactive compound:
	Most incompatible pair of compounds:

None

## <u>Toxicity</u>

Most toxic compound:

None

## Hazardous Waste Quantity

Total quantity of hazardous waste:

None

Basis of estimating and/or computing waste quantity:

## Checklist for Air Releases

			·	<u>Yes</u>	<u>No</u>
[de	ntify	ing Re	eleases		
1.	Pote	ntial	for Air Releases from the Facility		
	0	Unit	Characteristics		
		-	Is the unit operating and does is expose waste to the atmosphere?		<u> </u>
		-	Does the size of the unit (e.g., depth and surface area) create a potential for air release?		1
	0	Does moder relea	the unit contain waste that exhibits a rate or high potential for vapor phase ase?		
		-	Does the unit contain hazardous constituents of concern as vapor releases?		<u>/</u> .
		-	Oo waste constituents have a high potential for volatilization (e.g., physical form, concentrations, and constituent-specific physical and chemical parameters that contribute to volatilization)?		<u>/</u>
	0	cond	the unit contain waste and exhibit site itions that suggest a moderate or high ntial for particulate release?		
		-	Does the unit contain hazardous constituents of concern as particulate releases?	***************************************	<u>/</u>
		-	Do constituents of concern as particulate releases (e.g., smaller, inhalable particulates) have potential for release via wind erosion, reentrainment by moving vehicles, or operational activities?	******	_
		-	Are particulate releases comprised of small particles that tend to travel off-site?		_
	0	Do c	ertain environmental and geographic factors ct the concentrations of airborne contaminan	ts?	
		••	Do atmospheric/geographic conditions limit constituent dispersion (e.g., areas with atmospheric conditions that result in inversions)?		_
		-	Is the facility located in a hot, dry area?		

### Checklist for Air Releases

			<u>Yes</u>	<u>No</u>
2.	Evide	ence of Air Releases		
	o .	Does on-site monitoring data show that releases have occurred or are occurring (e.g., OSHA data)?	_	
	0	Have particulate emissions been observed at the site?	***************************************	<u> </u>
	0	Have there been citizen complaints concerning odors or observed particulate emissions from the site?		<u> </u>
		ing the Relative Effect of the Release on Human		
1.	Expos	sure Potential		
	0	Is a populated area located near the site?	_	<u>/</u> .

## Checklist for Subsurface Gas Releases

			<u>Yes</u>	<u>No</u>
Ide	ntify	ing a Release		•
1.	Poter	ntial for Subsurface Gas Releases		
	.0	Does the unit contain waste that generates methane or generates volatile constituents that may be carried by methane (e.g., decomposable refuse/volatile organic wastes)?	<u> </u>	
	o	Is the unit an active or closed landfill or a unit closed as a landfill (e.g., surface impoundments and waste piles)?	_	<u>/</u>
2.		ation of Subsurface Gas to On-site or Off-site dings		
	٥	Are on-site or off-site buildings close to the unit?		_
	0	Do natural or engineered barriers prevent gas migration from the unit to on-site or off-site buildings (e.g., low soil permeability and porosity hydrogeologic barriers/liners, slurry walls, gas control systems)?	_	
	0	Do natural site characteristics or man-made structures (e.g., underground power trans-mission lines, sewer pipes/sand and gravel lenses) facilitate gas migration from the unit to buildings?		<u>~</u>
		ing the Relative Effect of the Release on Human		
1.	Expo	sure Potential		
	0	Does building usage (e.g., residential, commercial) exhibit high potential for exposure?	**********	<u>/</u>

<ol> <li>CONTAINMENT</li> </ol>	1.	CONTA	INMENT
---------------------------------	----	-------	--------

Hazardous substances present:

None

Type of containment, if applicable:

### 2. WASTE CHARACTERISTICS

### Direct Evidence

Type of instrument and measurements:

None

### <u>Ignitability</u>

Compound used:

None

## Reactivity

Most reactive compound:

None

## Incompatibility

Most incompatible pair of compounds:

Nove

### Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

None

Basis of estimating and/or computing waste quantity:

### 3. TARGETS

Distance to Nearest Population

Distance to Nearest Building

125 ft.

### Distance to Sensitive Environment

Distance to wetlands:

Greater than 100 feet

Distance to critical habitat:

Greater than 1/2 mile

### Land Use

Distance to commercial/industrial area, if 1 mile or less:

The INEL is a research facility. There are no commercial/ industrial facilities within 1 mile.

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Greater than 2 miles

Distance to residential area, if 2 miles or less:

Greater than 2 miles

Distance to agricultural land in production within past 3 years, if 1 mile or less:

Greater than 1 mile

Distance to prima agricultural land in production within past 3 years, if 2 miles or less:

Greater than 2 miles

If a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

Big Southern Butte

Population Within 2-Mile Radius

1828

Buildings Within 2-Mile Radius

189

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1.	ひせこ	ことと	/ED	TIME	Ţυ	CIA I

Date, location, and pertinent details of incident:

Done

### 2. ACCESSIBILITY

Describe type of barrier(s):

Buried

### 3. CONTAINMENT

Type of containment, if applicable:



## 4. WASTE CHARACTERISTICS

### <u>Toxicity</u>

Compounds evaluated:

None-

Compound with highest score:

## 5. TARGETS

## Population within one-mile radius

1367

## Distance to critical habitat (of endangered species)

Greater than 1 mile